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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/543,129	01/26/2006	Sang Woon Suh	1630-0488PUS1	2627

2292 7590 12/31/2009

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EXAMINER	
DAZENSKI, MARC A	

ART UNIT	PAPER NUMBER
2621	

NOTIFICATION DATE	DELIVERY MODE
12/31/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/543,129	SUH ET AL.	
	Examiner	Art Unit	
	MARC DAZENSKI	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 September 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *22-49* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *22-49* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 July 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8-26-2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 22-49 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

Claims 22, 29, 36, and 43 are objected to because of the following informalities: the claims refer to "...the playback speed information is represented by one byte information and is represented by a multiplication of a basic speed, not by a bit rate." However, it is unclear where in the specification there is support for "not by a bit rate." Although figure 5, for example, discloses Playback Speed Information being contained in a Disc Information Table, this does not preclude the situation where the PSI is represented by a bit rate as well as by one byte information. In other words, the recitation of the PSI being represented by one or the other is not sufficient support for excluding bit rate values ("not by a bit rate"). Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 22-28 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent[1] and recent Federal Circuit decisions[2] indicate that a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. For example, although the claim refers to two recording steps (e.g., "recording a control information..." and "recording the main data..."), the claim does not positively recite any structure which undergoes the claimed recording steps and therefore is not tied to any particular apparatus or machine.

Claims 36-42 are rejected due to similar reasoning as claims 22-28 above (except claims 36-42 are the corresponding reproducing method to the recording method of claims 22-28).

[1] *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).
[2] *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

[1] *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).
[2] *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 22-24, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tozaki et al (US Patent 7,398,010), hereinafter referred to as Tozaki, in view of Weijenbergh et al (US Patent 7,248,555), hereinafter referred to as Weijenbergh.

Regarding **claim 22**, Tozaki discloses an information recording medium, apparatus for recording the same and apparatus for reproducing the same. Further Tozaki discloses a recording apparatus that records control information, video information, and audio information onto an optical disc, which reads on the claimed, "a method of recording data on a recording medium," as exhibited in figure 8; the method comprising:

recording physical format information (202) in a lead-in area of the optical disc, the physical format information (20) including lowest reading rate information, the lowest reading rate information being set for each DVD on the basis of the compressing rate of the video information and the audio information recorded on the whole of the DVD (1) so as to reproduce the whole portion of one DVD (1) at a same linear velocity, which reads on the claimed, "recording a control information on a specific area of the recording medium, the control information including a playback speed information…and a playback speed of the playback speed information is for suitably reproducing a main data," as disclosed at column 14, lines 46-48 and exhibited in figures 5, 6, and 7

(wherein the playback speed of the playback speed information is for suitably reproducing a main data because the data would not be successfully reproduced if not read at the lowest reading rate);

the physical format information (202) also includes one by information (212) indicating the disk size and the lowest reading rate, wherein the lowest reading rate is able to be set to either one of the maximum value of the reading rate and a reading rate equal to the maximum value multiplied by $\frac{1}{2}^n$, which reads on the claimed, "and the playback speed information is represented by one byte information and is represented by a multiplication of a basic speed, not by a bit rate," as disclosed at customer 14, lines 46-69 and column 15, lines 14-17 and exhibited in figures 6-7; and,

recording information R, which is raw material such as audio information, video information, etc. onto the DVD (1), which reads on the claimed, "recording the main data in a main data area," as disclosed at column 16, lines 28-30.

However, Tozaki fails to disclose a maximum transfer rate information specifying a maximum transfer rate needed by an application, wherein the maximum transfer rate information is represented by a bit rate, the playback speed information is distinguished from the maximum transfer rate information. The examiner maintains that it was well known in the art to include the missing limitations, as taught by Weijenbergh.

In a similar field of endeavor, Weijenbergh discloses a device and method for recording information enabling reduced response time of a recording device. Further, Weijenbergh discloses a table of physical disc information, byte 1 of which includes both disk size and the maximum transfer rate needed by an application, which reads on the

claimed, "a maximum transfer rate information specifying a maximum transfer rate needed by an application, wherein the maximum transfer rate information is represented by a bit rate, the playback speed information is distinguished from the maximum transfer rate information," as disclosed at column 14, lines 8-18 and exhibited in figure 7.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the information recording medium, apparatus for recording the same and apparatus for reproducing the same of Tozaki to include a table of physical disc information, byte 1 of which includes both disk size and the maximum transfer rate needed by an application, as taught by Weijenbergh, for the purpose of identifying various reproduction rates needed to read content from an optical disc.

Regarding **claim 23**, the limitations of the claim are rejected in view of the explanation set forth in claim 22 above.

Regarding **claim 24**, the combination of Tozaki and Weijenbergh discloses everything claimed as applied above (see claim 23). Further, Tozaki discloses physical format information (202) which includes disk size, book type and version, disk structure, and recording density, which reads on the claimed, "wherein the control information table further includes a recording medium size and version information specifying a medium size and version number of the recording medium respectively, a medium structure information specifying a number of recorded layers and a type of the recoded layers, and a recording density information associated with recording density of the recording medium," as exhibited in figure 6.

Regarding **claim 28**, the combination of Tozaki and Weijenbergh discloses everything claimed as applied above (see claim 22). Further, Tozaki discloses a maximum reading rate of 10.08Mbps or any value there multiplied by $(1/2)^n$, where n is a natural number, which reads on the claimed, "wherein the playback speed information is determined by referring to a transfer rate of the main data," as disclosed at column 14, lines 41-59.

Claims 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tozaki et al (US Patent 7,398,010), hereinafter referred to as Tozaki, in view of Weijenbergh et al (US Patent 7,248,555), hereinafter referred to as Weijenbergh, in view of Mishima et al (US Patent 7,343,083), hereinafter referred to as Mishima.

Regarding **claim 25**, the combination of Tozaki and Weijenbergh discloses everything claimed as applied above (see claim 22). However, the combination fails to disclose wherein the playback speed represents 1.2 or 1.5 times of the basic speed. The examiner maintains that it was well known in the art to include the missing limitations, as taught by Mishima.

In a similar field of endeavor, Mishima discloses a digital video signal record and playback device and method for selectively reproducing desired video information from an optical disk. Further, Mishima discloses the rate control of the variable rate is set, in the beginning, to discrete rate goals such as 1Mbits, 1.5Mbits, 2Mbits, 2.5Mbits, 3Mbits, or the like so that each of the rate information in all the GOP is recorded on a disc, which reads on the claimed, "wherein the playback speed represents 1.2 or 1.5 times of the basic speed," as disclosed at column 67, lines 31-34.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Tozaki and Weijenbergh to include the rate control of the variable rate is set, in the beginning, to discrete rate goals such as 1Mbits, 1.5Mbits, 2Mbits, 2.5Mbits, 3Mbits, or the like so that each of the rate information in all the GOP is recorded on a disc, as taught by Mishima, for the purpose of facilitating trick-play playback modes.

Regarding **claim 26**, the limitations of the claim are rejected in view of the explanation set forth in claim 25 above.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tozaki et al (US Patent 7,398,010), hereinafter referred to as Tozaki, in view of Weijenbergh et al (US Patent 7,248,555), hereinafter referred to as Weijenbergh, in view of Kojima (US Patent 5,953,484), hereinafter referred to as Kojima.

Regarding **claim 27,** the combination of Tozaki and Weijenbergh discloses everything claimed as applied above (see claim 22). However, the combination fails to disclose wherein the playback speed information is determined such that the main data on the recording medium is reproduced at a transfer rate of 36 Mbps, 40Mbps or faster. The examiner maintains that it was well known in the art to include the missing limitations, as taught by Kojima.

In a similar field of endeavor, Kojima discloses a video transmitting apparatus, video data receiving apparatus and video data transmitting and receiving system. Further, Kojima discloses the data storage device (204) reproduces and outputs the once recorded video data at a transmission rate of the satellite communication line, for

example, 40Mbps, which reads on the claimed, "wherein the playback speed information is determined such that the main data on the recording medium is reproduced at a transfer rate of 36 Mbps, 40Mbps or faster," as disclosed at column 7, lines 44-47.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify combination of Tozaki and Weijenbergh to include the data storage device (204) reproduces and outputs the once recorded video data at a transmission rate of the satellite communication line, for example, 40Mbps, as taught by Kojima, for the purpose of transmitting video data at a high quality.

Regarding **claims 29-35**, the examiner maintains the claims are the corresponding recording medium to the recording method of claims 22-28, and therefore are rejected in view of the explanation set forth in regards to claims 22-28 above.

Regarding **claims 36-42**, the examiner maintains the claims are the corresponding reproducing method to the recording method of claims 22-28, and therefore are rejected in view of the explanation set forth in regards to claims 22-28 above.

Regarding **claims 43-49**, the examiner maintains the claims are the corresponding reproducing apparatus to the reproducing method of claims 36-42, and therefore are rejected in view of the explanation set forth in regards to claims 36-42 above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARC DAZENSKI whose telephone number is (571)270-5577. The examiner can normally be reached on M-F, 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571)272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
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